

REMARKS

Claims 12-16 have been canceled without prejudice as being drawn to a non-elected invention. Claim 5 is related to the subject matter of claims 12-16 and has also been canceled without prejudice. Based on the interview which took place March 14, 2006, subject matter of claim 6 has been incorporated into claim 1, and claim 6 has been canceled. Claims 1, and 7-11 have been amended. New claims 17 and 18 have been added.

As discussed during the interview, claims 1, 10 and 11 have been added to emphasize that a single piece of plastic is used to make the bottle cap. Claim 1 highlights that the annular bottle engaging means is either threaded or has a locking hook (see Figures 6a-6c of the application; and claims 3-4). New claim 17 includes some of the subject matter canceled from original claim 1 and requires the convex shape have a perimeter which extends to the edge of the annular bottle engaging member (see Figures 6a-6c). New claim 18 requires that the lens portion and the annular bottle engaging member are formed simultaneously. Support for each of these amendments and new claims can be found throughout the application, but especially at page 8, lines 18-26 which reads as follows:

“The pressing step is preferably performed using a stamping (claim 2) machine whereby the resulting upper and lower convex surfaces are formed having a perimeter extending to the annular bottle engaging portion (claim 17) 114. The annular bottle engaging portion 114 of the bottle cap and the lens 111 are formed from a single piece of plastic (claims 1, 10, 11), preferably formed simultaneously (claim 18), during the stamping process; or, alternatively, prior to or following lens formation, or a combination thereof depending on the attachment method (e.g. thread engaging members, projecting hook regions (claim 1), etc.) for connecting the annular bottle engaging portion 114 to the cap engaging portion of the bottle 120.” (Emphasis added and citation to claims added)

Furthermore, as discussed during the interview, the methodology is focused on making bottle caps for, for example, medicine bottles, where the bottle cap will function to both secure the medicine in the bottle, and to allow the user to have a

ready means of magnification for reading instructions on the bottle (see, e.g., Figure 3 of the application). As is best illustrated in Figures 4 and 5, it is common to have different bottles of different sizes. As explained in the paragraph on page 7 of the application at lines 9 to 25, the invention contemplates a step where by the lens' radial curvature is based on the bottle cap diameter. Claim 1 has been amended to specifically recite this feature.

Claims 1-3, 6, 7, and 9-11 have been rejected as being anticipated by U.S. Patent 2,635,289 to Owens. Claim 4 has been rejected as being obvious over Owens in view of U.S. Patent 2,669,369 to Towns. Claim 5 has been rejected as being obvious over Owens in view of U.S. Patent 4,401,434 to Harris. Claim 8 has been rejected as being obvious over Owens. Each of these rejections are traversed in view of the amendments above and remarks below.

The principle reference to Owens is directed to methods of making optical and other precision elements, as is best set forth in the title. At the outset, the undersigned disputes Owens teaching in any manner the formation of a bottle cap of any kind. Rather, Owens teaches precision magnification lenses used in glasses, instruments, cameras and other devices. Owens teaches the use of highly polished glass punches and glass dies for molding the lenses out of glass or laminated materials (Figure 62 referenced by the Examiner); see columns 11 and 12 of Owens.

To highlight differences between the claimed method of claim 1, and the processes described in Owens, claim 1 now recites that a single piece of plastic is used, and that is either in the shape of a bottle cap or will be formed into the shape of a bottle cap which has a top portion and an annular bottle engaging portion which includes either thread engaging members or a lid wall with an inwardly projecting hook region at its base for selectively affixing the bottle cap to a top of a bottle. The top portion will have at least one upper or lower convex surface created by the pressing step so as to provide optical magnification of objects viewed through said top portion. Moreover, the process contemplated by the invention envisions selecting different radii of curvature (e.g., Figures 4 and 5 of the application) for different diameter bottle caps.

As discussed during the Interview, in Owens, a bottle cap is not being

formed. Rather, Figure 30 of Owens shows a lens with a filter 288 which is fitted to a precision instrument. Column 20, lines 32-44 indicates that an external thread is included to fit to an internal thread within an instrument. This aligns the lens or "light transmitting body 281" for use in the instrument. In sharp contrast, claim 1 requires features such as thread engaging members and hook regions which permit it to be selectively affixed to the top of a bottle. Owens, which clearly does not show a process for forming a bottle cap that fits on the top of a bottle, and simply lacks these features and does not anticipate the claimed invention.

More importantly, as discussed during the interview, Owens does not show or suggest a process for making different sized bottle caps (or any other device) which have different diameters in a way where these different sized bottle caps will have different radii of curvature based on the different diameters. Rather, Owens merely shows fabrication techniques for making a single size lens for a single device (e.g., Owens is concerned with making lens for specific instruments, cameras, etc.), and at no point would it be obvious from Owens to have a procedure, such as one specific for mass production of bottle caps of different sizes, whereby the radii of curvature would be varied depending on the diameter of the bottle cap.

Owens is directed to making precision optical elements used in cameras, eyeglasses, and instruments. In sharp contrast, the present invention is related to making a disposable bottle caps which would be used on, for example, medicine bottles. The lens of the claimed invention is basically used for enlarging the text on a bottle after the cap is removed. In contrast, the Owens design and methods are intended for making a lens which is used as an integral part of the instrument, camera, eyeglasses, etc. Owens does not describe or suggest a technique for forming a convex lens together with an annular bottle engaging feature which allows the device to be selectively affixed to the top of a bottle.

One of ordinary skill in the art would not combine Owens with U.S. Patent 2,669,369 Towns as suggested by the Examiner. Towns describes an air tight stopper which would be used on a soda bottle. Towns has features for tightly gripping inside and outside the opening to a soda bottle such that carbonation would be retained for longer periods. Towns does not suggest any utility for the

bottle cap other than as a stopper. Further, since the Towns bottle cap is being used as stopper on a soda bottle, there would be no reason to suggest modifying the Towns bottle cap to include a magnification lens feature (i.e., there is no need to determine dosing, etc., from a bottle of soda). Further, one of ordinary skill in the art would not seek to modify lenses used in precision instruments with a stopper feature as set forth in Towns.

With regard to claim 11, Owens in no way teaches having a translucent material (see Examiner's reference to Title, 4:14, and 11:69-12:33). In the passages referenced by the Examiner, it is made clear that Owens is using a plastic material (e.g., lucite) which is transparent so that he can make lenses for precision applications. As noted above, the claimed invention provides a process for making a bottle cap where the bottle cap has a magnification feature to allow a person to read, for example, labels on medicine bottles. Translucent materials will fulfill this application; however, they would not be acceptable in and are not suggested by Owens. As discussed with the Examiner during the interview, translucent has a different meaning from transparent as is evidenced by the entries from the attached Oxford Illustrated American Dictionary for "Translucent" and "Transparent" (note particularly that the definition for "Transparent" has a specific reference for contrasting it with "Translucent").

With regard to claim 17, as noted above, Owens does not suggest formation of a bottle cap and, therefore, does not suggest having the lens perimeter extend to the edge of the bottle engaging portion. If Owens were combined with Towns (which as noted above would be an improper hindsight reconstruction), the lens would not extend to the edge of the bottle engaging member. As noted in Figures 5 and 6, Towns contemplates an inner flange which does not secure the cap to the bottle, in addition to the outer tabs 24 which do secure the bottle cap to the bottle. Thus, any combination of Owens and Towns would not permit the perimeter of the lens to extend to the tabs 24.

With regard to claim 18, Owens alone or in combination with any reference record would not suggest the simultaneous formation of the magnifying top portion and the annular engagement portion. None of the references, including Owens, suggest a simultaneous formation operation.

Claim 5 has been canceled, and Harris has only been relied upon in the context of the Harris reference. However, Harris would not make up for the deficiencies of Owens as it does not describe a bottle cap formed from a single piece of plastic. Rather, Harris shows a lens 64 fitted into the rim of a package which holds tweezers. In sharp contrast, the claimed invention is focused on a methodology whereby bottle caps are formed from a single piece of plastic which allows them to be accommodated on the top of a bottle and which permits them to provide optical magnification. During the interview the issue of combinability of Harris with the other references of record was discussed; however, it was noted that since Harris has a separate lens and the lens is not manipulated like Owens, it would be a complete reconstruction of the Owens device not motivated by either reference to substitute an already formed lens for one that is to be formed out of plastic (as taught in Owens).

In conclusion, none of the references identified are directed to methods for mass producing bottle caps having a magnification feature. As explained on page 2 of the application, this is a highly desirable property and is needed for addressing concerns with an aging population. Because none of the references are directed to methods for mass producing bottle caps having a magnification feature, none of the references recognize or suggest anything related to selecting a radius of curvature for a convex surface of the top portion of the cap based on the diameter of the cap. It should be understood by the Examiner that this feature is not inherent, as one could simply choose not to select a radius of curvature based on the diameter of a lens and make the same radius of curvature no matter how big or how small the lens to be manufactured.


In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1-4, 6-11, and 17-18 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary

for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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trans-i-tive /tránzitiv-, -si-/ *adj.* *Gram.* (of a verb or sense of a verb) that takes a direct object (whether expressed or implied). e.g., *saw in saw the donkey, saw that she was ill* (opp. *intransitive*). **trans-i-tive-ly** *adv.* **trans-i-tive-ness** *n.* **trans-i-tiv-i-ty** /-tívitee/ *n.*

trans-i-to-ry /tránzitawree/ *adj.* not permanent; brief; transient. **trans-i-to-ri-ly** /-táwrelee/ *adv.* **trans-i-to-ri-ness** /-táwreenis/ *n.*

trans-it visa *n.* a visa allowing only passage through a country.

trans-late /tránzláyvt, tráns-/ *v.* **1 tr.** (also *absol.*) **a** (often foll. by *into*) express the sense of (a word, sentence, speech, book, etc.) in another language. **b** do this as a profession, etc. (*translates for the UN*). **2 intr.** (of a literary work, etc.) be translatable; bear translation (*does not translate well*). **3 tr.** express (an idea, book, etc.) in another, esp. simpler, form. **4 tr.** interpret the significance of; infer as (*translated his silence as dissent*). **5 tr.** move or change, esp. from one person, place, or condition, to another (*was translated by joy*). **6 intr.** (foll. by *into*) result in; be converted into; manifest itself as. **trans-lata-ble** *adj.* **trans-lat-a-bil-i-ty** /-laytábilitee/ *n.*

trans-la-tion /tránzláyshon, tráns-/ *n.* **1** the act or an instance of translating. **2** a written or spoken expression of the meaning of a word, speech, book, etc., in another language. **trans-la-tion-al** *adj.* **trans-la-tion-al-ly** *adv.*

trans-la-tor /tránzláytor, tráns-/ *n.* **1** a person who translates from one language into another. **2** a television relay transmitter. **3** a program that translates from one (esp. programming) language into another.

trans-lit-er-ate /tránzlítarayt, tráns-/ *v.tr.* represent (a word, etc.) in the closest corresponding letters or characters of a different alphabet or language. **trans-lit-er-a-tion** /-ráyshan/ *n.* **trans-lit-er-a-tor** *n.*

trans-lo-cate /tránzlókáyvt, tráns-/ *v.tr.* move from one place to another. **trans-lo-ca-tion** /-káyshon/ *n.*

trans-lu-cent /tránzlóósent, tráns-/ *adj.* **1** allowing light to pass through diffusely; semitransparent. **2** transparent. **trans-lu-cence** *n.* **trans-lu-cen-cy** *n.* **trans-lu-cent-ly** *adv.*

trans-mi-grate /tránzmígrayt, tráns-/ *v.tr.* **1** (of the soul) pass into a different body; undergo metempsychosis. **2** migrate. **trans-mi-gra-tion** /-gráyshan/ *n.* **trans-mi-gra-tor** *n.* **trans-mi-gra-to-ry** /-mígratawree/ *adj.*

trans-mis-sion /tránzmishon, tráns-/ *n.* **1** the act or an instance of transmitting; the state of being transmitted. **2** a broadcast radio or television program. **3** the mechanism by which power is transmitted from an engine to the axle in a motor vehicle.

trans-mit /tránzmít, tráns-/ *v.tr.* (**transmitted, transmitting**) **1** a pass or hand on; transfer (*transmitted the message, how diseases are transmitted*). **b** communicate (ideas, emotions, etc.). **2** a allow (heat, light, sound, electricity, etc.) to pass through; be a medium for **b** be a medium for (ideas, emotions, etc.) (*his message transmits hope*). **3** broadcast (a radio or television program). **trans-mis-sible** /-misábel/ *adj.* **trans-mis-sive** /-misiv/ *adj.* **trans-mit-table** *adj.* **trans-mit-tal** *n.*

trans-mit-ter /tránzmítar, tráns-/ *n.* **1** a person or thing that transmits. **2** a set of equipment used to generate and transmit electromagnetic waves carrying messages, signals, etc., esp. those of radio or television. **3** = *NEUROTRANSMITTER*.

trans-mog-rify /tránzmógríft, tráns-/ *v.tr.* (-ies, -ied) *jo.* transform, esp. in a magical or surprising manner. **trans-mog-rifi-ca-tion** /-fikáyshan/ *n.*

trans-mon-tane /tránsmóntayn, tráns-/ *adj.* = *TRANSMONTANE*.

trans-mute /tránzmuyót, tráns-/ *v.tr.* **1** change the form, nature, or substance of. **2** *Alchemy hist.* subject (base metals) to the supposed process of changing base metals into gold. **trans-mut-a-ble** *adj.* **trans-mut-a-bil-i-ty** /-tábilitee/ *n.* **trans-mu-ta-**

tion n. **trans-mu-ta-tive** /-myóótativ/ *adj.* **trans-mut-er** *n.*

trans-na-tional /tránznáshonl, tráns-/ *adj.* extending beyond national boundaries.

trans-o-ce-anic /tránzóshánik, tráns-/ *adj.* **1** situated beyond the ocean. **2** concerned with crossing the ocean (*transoceanic flight*).

trans-om /tránsom/ *n.* **1** a horizontal bar of wood or stone across a window or the top of a door (cf. *MULLION*). **2** each of several beams fixed across the sternpost of a ship. **3** a beam across a saw pit to support a log. **4** a strengthening crossbar. **5** = *TRANSON WINDOW*. **trans-om-ed** *adj.*

trans-om win-dow *n.* **1** a window divided by a transom. **2** a window placed above the transom of a door or larger window; a fanlight.

trans-on-ic /tránsónik/ *adj.* (also **trans-son-ic**) relating to speeds close to that of sound.

trans-pa-rency /tránzpárans, traanz-, párans/ *n.* = *TRANSPARENCY* **1**.

trans-par-en-cy /tránzpáransee, páransee, tráns-/ *n.* (*pl.* -ies) **1** the condition of being transparent. **2** *Photog.* a positive transparent photograph on glass or in a frame to be viewed using a slide projector, etc. **3** a picture, inscription, etc., made visible by a light behind it.

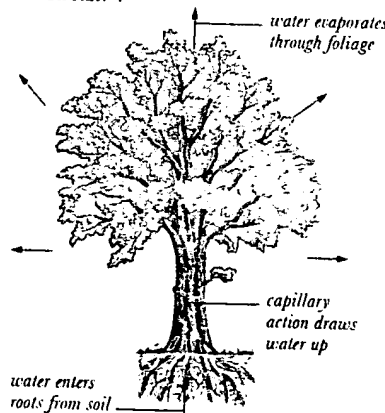
trans-pa-rent /tránzpáirént, páirént, tráns-/ *adj.* **1** allowing light to pass through so that bodies can be distinctly seen (cf. *TRANSCUENT*). **2** a (of a disguise, pretext, etc.) easily seen through. **b** (of a motive, quality, etc.) easily discerned; evident; obvious. **3** (of a person, etc.) easily understood; frank; open. **trans-pa-rent-ly** *adv.* **trans-pa-rent-ness** *n.*

trans-pi-re /tránsprí-/ *v.* **1 intr.** (of a secret or something unknown) leak out; come to be known. **2 intr.** *disp.* a (prec. by *it* as subject) turn out; prove to be the case (*it transpired he knew nothing about it*). **b** occur; happen. **3 tr. & intr.** emit (vapor, sweat, etc.), or be emitted, through the skin or lungs; perspire. **4 intr.** (of a plant or leaf) release water vapor. **trans-pi-ra-ble** *adj.* **trans-pi-ra-tion** /-spiráyshan/ *n.* **trans-pi-ra-to-ry** /-spiratawree/ *adj.*

trans-plant *v.* & *n.* **trans-plánt** /tránzpánt, tráns-/ **1** a plant in another place (*transplanted the daffodils*). **b** move to another place (*whole nations were transplanted*). **2** *Surgery* transfer (living tissue or an organ)

TRANSPIRE

Water vapor transpires (evaporates) constantly through pores (stomata) in the surface of a plant's leaves. Fresh supplies of moisture enter the plant's roots from the soil. Root pressure forces the water up the stem, where capillary action draws it farther up in a continuous "transpiration stream".



TRANSPIRATION STREAM WITHIN A TREE

and implant in another part of the body another body. **trans-plant** *n.* **trans-plánt** *n.* **1** a the transplanting of an organ or tissue to another body. **2** a thing, esp. a plant, transplanted. **trans-planta-ble** *adj.* **trans-plan-ter** *n.*

trans-pender /tránzpóndar, tráns-/ *n.* a person receiving a radio signal and automatically transmitting a different signal. **trans-pen-er** *n.*

trans-pen-time /tránzpóntín, tráns-/ *n.* a period of time on the other side of a bridge, esp. *Brit.* on the north side of the Thames.

trans-port *v.* & *n.* **trans-pawrt** /tránzpawrt, tráns-/ **1** or carry (a person, goods, troops, luggage, etc.) from one place to another. **2** *hist.* take (a person) to a penal colony; deport. **3** (as **transportation**) (usu. foll. by *with*) affected with strong emotion. **trans-pawrt** /tráns-pawrt, tráns-/ **1** a a system of conveying people, goods, etc., from place to place. **b** the means of this (*our transport has arrived*). **c** aircraft, etc., used to carry soldiers, etc. **3** (esp. in *pl.*) vehement emotion (*transported with grief*).

transport-a-ble /tránzpawrtábal, tráns-/ *adj.* **1** capable of being transported. **2** a a person or offender or an offense punishable by transportation. **trans-port-a-bil-i-ty** /-bílíte/ *n.*

trans-porta-tion /tránzpórtáyshan, tráns-/ *n.* **1** the act of conveying or the process of being conveyed. **2** a a system of conveying people, goods, etc., from one place to another. **b** of this. **3** *hist.* removal to a penal colony.

trans-port-er /tránzpawrtar, tráns-/ *n.* **1** a person or device that transports. **2** a vehicle used to transport other vehicles or large pieces of equipment, etc., by road.

trans-pose /tránzpóz, tráns-/ *v.tr.* **1** a change the position of (a thing) to change places. **b** change the position of (a thing) in a series. **2** change the position of (words or a word) in a sentence. **3** write or play in a different key. **4** *Algebra* (mathematics) interchange (two terms) with a changed sign to the other side of an equation. **trans-pos-a-ble** *adj.* **trans-pos-er** *n.*

trans-po-si-tion /tránzpóshon, tráns-/ *n.* an instance of transposing; the state of being transposed. **trans-po-si-tion-al** *adj.* **trans-po-si-tive** /-póztiv/ *adj.*

trans-sex-u-al /tránséshóol, tráns-/ *adj.* **1** having the physical characteristics of both sexes. **2** the supposed psychological characteristics of both sexes. **trans-sex-u-al-ism** *n.*

trans-ship /tránzshíp, tráns-/ *v.tr.* **1** (usu. *intr.* (-shipped, -shipping)) transfer (goods, etc.) from one form of transport to another. **trans-ship-ment** *n.*

trans-son-ic *var.* of *TRANSONIC*.

trans-sub-stan-tia-tion /tránzshubstáshon, tráns-/ *n.* *Theol. & RC Ch.* the conversion of the elements wholly into the body and blood of Christ, only the appearance of bread and wine remaining.

trans-u-ranic /tránzyóóránik, tráns-/ *adj.* (of an element) having a higher atomic number than uranium.

trans-ver-sal /tránzvársol, tráns-/ *adj.* **1** (of a line) cutting a system of lines. **2** *Math.* *transversal line*. **trans-ver-sal-i-ty** /-vársalíte/ *n.* **trans-ver-sal-ly** *adv.*

trans-ver-se /tránzvárs, tráns-/ *adj.* **1** arranged, or acting in a crosswise direction. **trans-ver-se-ly** *adv.*

trans-ves-tism /tránzvéstízim, tráns-/ *n.* **1** wearing the clothes of the opposite sex. **2** a sexual stimulus. **trans-ves-tist** *n.*

trans-ves-tite /tránzvéstít, tráns-/ *n.* a person given to transvestism.

trap /trap/ *n.* & *v.* **1** a on a trap. **2** a often baited, for catching animals, esp. small mammals.